Erica F. Huang

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EDUCATION

Tufts University, Medford, MA   May 2027
B.S.E. in Computer Science, Minor in Embedded Systems
3.87/4.0 GPA, Dean's List: Fall 2023, Spring 2024, Fall 2024, Spring 2025

Relevant Courses: Data Structures, Software Engineering, Calculus III, Linear Algebra, Discrete Mathematics, AI: Algorithms Ethics & Policy, Machine Structure & Assembly Language Programming, Big Data, Methods for Human Factors Engineering, Intro to Circuits and Electronics, Intro to Digital Circuits

Skills: C++, C, Java, R, Python, LaTeX, parallel computing, optimization, neural networks, digital circuits, digital electronics, Microsoft Office, Google Workspace

Interests: Artificial intelligence, programming, machine learning, robotics, human-robot interaction, mechanical and electrical systems design, physics, calculus, performance optimization, ethical applications of technology, computer engineering

EXPERIENCE

***Research Assistant (Paid),* Tufts University Human Robot Interaction Lab,** Medford, MA   May 2025 – Present

- Training Boston Dynamic's Spot robot to improve object manipulation skills in an open-world environment
- Running experiments to understand how teams work with the goal of creating an LLM to assist teamwork

***Software Engineering Intern (Paid),* Cytel,** Wellesley, MA   Summer 2024, Summer 2025
- Worked with Cytel's innovation team for 2 summers
  - Parallelizing simulations in R using C++ (2024)
  - Report generation using simulation output in R (2025)
- Optimized code using parallel processing and communicating between multiple coding languages
- Tested different forms of optimization such as using a dynamically linked library to communicate between C++ and R, running C++ in parallel, and running R in parallel
- Presented well-received analysis and recommendations to a team of senior developers

***Founder and Lead Student Mentor,* FIRST LEGO League (FLL) Team,** Wellesley, MA   May 2022 – May 2023
- Created and led partnership with Wellesley Middle School science and technology teachers to launch two FIRST LEGO League Challenge teams for 6th through 8th grade students
- Placed 9th and 19th out of 36 teams at 2022 regional competition
- Won the team award for displaying FIRST core values
- Currently a team advisor and mentor during university breaks

***Founding Member and Coding Lead,* FIRST Robotics Competition (FRC),** Wellesley, MA   Aug 2020 – May 2022
- Led nine-member coding team, contributing to an award-winning robot (fall 2020)
- Expanded and gender-diversified coding team, contributing to a second award-winning robot (fall 2021)
- Established and served in the team's first Director of Community Education and Outreach role (2022-2023)
- In this role, created and implemented summer robotics workshops for 3rd and 4th graders and collaborated with local Girl Scout leaders to develop and run badge-earning events

AWARDS AND ACHIEVEMENTS

Centennial Youth Service Award   2023
Awarded by the town of Wellesley for founding and leading two FIRST LEGO League teams for the town's public middle school.

Dean's List Nominee, FIRST Robotics Competition   2022
Nominated for leadership and professionalism by my 40-member team and mentors from the community and industry.

OTHER NON-ACADEMIC INTERESTS

Hobbies: Snowboarding, weightlifting, basketball, triathlons, rock climbing, backpacking, puzzles, saxophone
Tufts Clubs: Basketball, Mountain Club, Wilderness Orientation, Electrical Racing, Rocketry